CALNET II RFP DGS-2053 Question and Answer Set #5
December 7, 2004

The answers contained in Question and Answer Sets are in response to the questions presented by vendors to be addressed at the bidders conference and are not all inclusive. Additional answers to questions submitted for the bidders conference will be issued as responses are developed.

General Response: These answers have been developed in response to the literal questions posed and the State has not tried to read anything more into the questions. The length of each answer is intended to provide information focused on the specific point of each question without confusing the issue. If you feel a question of a specific RFP point has not been answered thoroughly, please refine your question and resubmit it for response.

Functionality:

- It is not the State's intent to dictate the method of service/feature delivery.
- The complexity and diversity of the responses possible for some questions dictate the need for further detailed clarification and analysis which will occur during the conceptual and detailed technical proposal confidential discussions (RFP Section 2.3.2).

Costing: The pricing model provided in the cost tables in Section 7 is designed as a means to compare the prices of all bidders equally for the functionality required in the RFP. The intent is to solicit pricing for all of the features and functionality required while allowing each bidder an opportunity to apply the pricing for their particular solution to each of the requirements.

Alternative Services: The state, through provisions of Appendix B, Section 67, Availability of Refreshed Technology and Additional Service Items, has demonstrated its interest in having access to alternatives services and new technologies. Following the Contract award, services may be added to the CALNET II contract only if categorized as an enhancement to competitively bid services offered under the Contract. If the state determines the offered service does not qualify as an enhancement, the state will consider alternative competitive procurement options.

Specific Answers:

6-1. 6.4.7: Central office trunk service page 49: SS7 signaling capabilities for CPE trunks. It is not clear that this can be offered or that it could be used if it were. Is this a correct interpretation of the requirement?

Answer: Equivalent or like services or features, that meet or exceed the State's requirements may be proposed by the contractor.

6-2. 6.4.7: Availability control is not an industry standard feature. What is this?

Answer: A feature that enables the customer to make incoming or outgoing Central Office hunt groups, or lines busy. Equivalent or like services / features that meet or exceed the State's requirements may be proposed by the contractor.

6-3. 6.4.7: Second dial tone requires a line-side connection. This can be provided with analog Centrex or with a line-side T1, but it is inconsistent with other features required in the basic central office trunk, such as answer supervision.

Answer: Please clarify question and resubmit.

6-4. 6.4.7: The call transfer feature is a line-side trunk feature that can be used with key systems, but generally not with PBXs. Why does the State need MF signaling? This is generally a central office trunk signal except on CAMA trunks. Is this a correct understanding of the State's requirements?

Answer: It is not the State's intent to dictate the method of service/feature delivery. See "General Response" in Question and Answer Set #2 posted November 24th, 2004.

6-5. 6.4.9 Interactive Voice Response (IVR) System: Are all IVR applications for voice line side, local central office services or does this also pertain to network-based and toll free applications?

Answer: Both configurations are utilized by governmental agencies.

6-6. 6.4.9 Interactive Voice Response (IVR) System: What is the intent of Intelligent call transfers? Please explain in some detail.

Answer: Customers may require some level of customization as it relates to enhanced call processing or call routing. The contractor and customer define this requirement, jointly, during the process identified in Section 6.13.3.

6-7. 6.4.9 Interactive Voice Response (IVR) System: Would you please explain, in some detail, the Call progress detection?

Answer: The ability of the IVR system to monitor, and or report, the call/application progress flow, related to each voice-processing task.

6-8. 6.4.10 Consolidated Services: Since IP is listed under basic & enhanced services for this section, does that mean DGS/TD is considering VoIP solutions for consolidated locations?

Answer: The reference to IP as a Mandatory-Optional requirement will be removed from RFP Section 6.4.10 (Consolidated Services) in a future addendum. Notwithstanding this change, it is not the State's intent to dictate the method of service/feature delivery. Refer to Questions and Answers Set #1, question #3 posted November 16th, 2004. The State will consider bidder proposals and technology solutions that are predicated on service to specific geographic locations, communities of interests between users, and user specific business applications. For some technologies, the State has determined it is not in its best interest to

implement on a statewide basis based on a number of factors. The State will consider proposals on an individual case basis with implementation at its discretion.

6-9. 6.4.10 Consolidated Services: Does the VoIP service need to support all of the Consolidated Central Office Exchange Services features detailed in 6.4.4b and 6.4.10a?

Answer: No. See answer to 6-8 above.

6-10. 6.4.10 Consolidated Services: Does the State desire a flat rate local calling area for Consolidated Central Office Exchange Services and VoIP phones?

Answer: Yes, refer to Section 7 for pricing structure.

6-11. 6.6 Data Services: For all data services, is "Extended" a term from the existing contract that means something other than "Interstate"?

Answer: Extended is defined as nationwide service.

6-12. 6.6 Data Services: To ensure we comply and are pursuing the same standards, would DGS please provide specific references to the desired standards body.

Answer: The most current established industry standards identified in each of the sections.

6-13. 6.6 Data Services: Open architecture standards used in today's Enterprise Networks are not limited by legacy point-to-point LATA regulations, they are global by design. Open Architecture standards embrace IP because of its open, non-proprietary design and an IP design would not be based or defined by LATA definitions. Was IP specifically omitted?

Answer: It is not the State's intent to dictate the method of service/feature delivery. Refer to Questions and Answers Set #1, question #3 posted November 16th, 2004.

6-14. 6.6.1 WAN Backbone Design: Does the RFP have a requirement for network visibility and network management? If not, why not? What visibility does DGS/TD have of the parts of the current PSTN network that carry State traffic?

Answer: a. Yes, refer to network management tools Section 6.17. b. The current level of visibility is provided by network management tools similar to those described in RFP Section 6.17.

6-15. 6.6.1 WAN Backbone Design: Should the State make a lack of network operations visibility a mandatory-disqualification item?

Answer: Please clarify the question and resubmit.

6-16. 6.6.1 WAN Backbone Design: Please provide a sample drawing that meets the requirements laid out. Does DGS/TD have these drawings on file today for all state agencies procuring WAN services under CALNET-I, or is this a new requirement in this procurement?

Answer: This is a new requirement and no examples will be provided at this time. Respondents shall follow the directions listed in Section 6.6.1.

6-17. 6.6.1 WAN Backbone Design: Page 64: Is it DGS/TD's intent to require detailed drawings in a specified format?

Answer: Refer to Section 6.6.1 for detailed requirements.

6-18. 6.6.1 WAN Backbone Design: This section discusses data network services, however it asks for comments on backward compatibility, reliability and availability for voice services and voice CPE. Please clarify.

Answer: This error was corrected with Addendum #1.

6-19. 6.6.1 WAN Backbone Design: We assume Data services are being described in section 6.6.1 and that "data network designs" for "data services" are the requirement here, not voice?

Answer: This error was corrected with Addendum #1.

6-20. 6.6.1 WAN Backbone Design: Could you please differentiate between standards for Frame Relay/ATM and Extended Frame Relay and Extended ATM?

Answer: The term "extended" refers to services nationwide as opposed to services within the state. The same standards should apply to both.

6-21. 6.6.1 WAN Backbone Design: MM-04-08 references **"***Gigabit Metropolitan Area Network (GigaMAN)"*. GigaMAN is a product and service mark of SBC Communications, Inc. Is the proprietary version of Gigabit Ethernet MAN required, or is the standards based Gigabit Ethernet MAN required here?

Answer: Refer to Section 6.6.2.5 for the Gigabit Ethernet MAN requirements.

6-22. 6.6.1 WAN Backbone Design: Was the Backbone design determined prior to the release of the RFP and should all vendors assume only the legacy technologies listed in this section are allowed? If not, what standards does DGS desire to follow for current or new technologies appropriate for an Enterprise Network Backbone?

Answer: a. Refer to Questions and Answers Set #1, question #3 posted November 16th, 2004. b. The most current established industry standards should apply.

6-23. 6.6.1: RFP states "The Contractor shall provide voice network designs and diagrams for each of the following voice services described in this section" Should this statement read "The Contractor shall provide DATA network designs and diagrams for each of the following DATA services described in this section"?

Answer: This error was corrected with Addendum #1.

6-24. 6.6.1, Gigabit Ethernet Metropolitan Area Network: How will voice services be transported on Gigabit Ethernet? Is there a requirement that the vendor provide a Gigabit Ethernet MAN?

Answer: a. This error was corrected with Addendum #1. b. No, Section 6.6.2.5 is designated as "Desirable".

6-25. 6.6.1, Frame Relay: How will voice services be delivered?

Answer: Refer to Section 6.3 for voice services requirements. The reference to voice services in Section 6.6.1 was inaccurate and was corrected with Addendum #1.

6-26. 6.6.1, Extended Frame Relay: What is "Extended" Frame Relay? How will voice services be delivered over "Extended" Frame Relay?

Answer: a. Extended refers to services provided nationwide. b. The reference to voice services in Section 6.6.1 was inaccurate and was corrected with Addendum #1.

6-27. 6.6.1, Extended ATM: What is "Extended" ATM? How will voice services be delivered?

Answer: a. Extended refers to services provided nationwide. b. The reference to voice services in Section 6.6.1 was inaccurate and was corrected with Addendum #1.

6-28. 6.6.1, "The Contractor shall provide 3 hard copies and 1 electronic copy with the proposal. Additionally, the Contractor shall submit 3 hard copies and 1 electronic copy quarterly throughout the term of the contract." Is this the submission requirement, or just for this section?

Answer: Yes it is a submission requirement to submit 3 hard copies and 1 electronic copy with the RFP proposal. The work "Contractor" will be replaced with the word "Bidder" in a future addendum. Additionally, the words "Additionally, the Contractor shall submit 3 hard copies and 1 electronic copy quarterly throughout the term of the contract" will be deleted in a future addendum.

6-29. 6.6.1, Regarding backward compatibility, is it possible to receive a listing of the existing CPE including make and model information? What types of equipment/interfaces will have to be supported?

Answer: It is impractical for the State to provide inventory information related to CPE equipment. The interface requirements are identified through the requirements for the services such as Frame Relay, ATM, etc. The replacement of equipment for backward compatibility only applies towards those services with which the provider may wish to provide a proprietary or non-compatible alternative.

6-30. 6.6.2.1.a, "Central Office Multiplexing (M-O)", Is the vendor to provide multiplexing IntraLATA?

Answer: Yes.

6-31. 6.6.2.1.b Table 6.6.2.1b Data Transmission Service - Analog Service and Features (D): Is vendor to provide these services intraLATA?

Answer: Yes.

6-32. 6.6.2.2, "The Contractor shall provide point-to-point digital data circuits. DS0 service supports multipoint/multi-drop digital data circuits up to 56 Kbps providing full duplex, four wire, end-to-end, synchronous serial digital data transport.": How is this different from the services required in paragraph 6.6.2.1.a?

Answer: Section 6.6.2.1a addresses Analog transmission, 6.6.2.2 refers to Digital transmission.

6-33. 6.6.2.2, "Advanced Digital Network (ADN) or equivalent - A dedicated digital private line service at DS0 and below speeds, providing full duplex, 4 wire, end-to-end, synchronous, data transport." At what speeds Below DS0?

Answer: Rates of 2.4, 4.8, 9.6, 19.2 and 56kbps are currently supported.

6-34. 6.6.2.2, "Customer Network Reconfiguration - Allows changes to connections of individual circuit segments at digital cross connect node, either proactively or within minutes of a trouble detection." Cross-connect and redundant infrastructure to be provided by the contractor?

Answer: Yes.

6-35. 6.6.2.2, "InterLATA Service - Extended Dedicated Services required if service crosses LATA boundaries." What does DSG mean by "Extended" Data Services?

Answer: These are data services that extend outside the state, nationwide.

6-36. 6.6.2.3, In re Page 71 would you please provide a detailed explanation of Extended Super frame?

Answer: **ANSI T1 framing standard**.

6-37. 6.6.2.3, Carrier DS1 Service: Maximum usable bandwidth is 1.536 in modern systems. 8kbps required for framing. Is 1.544 a correct requirement?

Answer: Yes, 1.544 Mbps or 1.536 with 8kps framing. Please identify any additional features.

6-38. 6.6.2.3, Carrier DS1 Service: Is any other line coding required (such as ANI) other than the ones specified?

Answer: Please clarify (AMI – Alternate Mark Inversion or ANI – Automatic Number Identification) and resubmit.

6-39. Table 6.6.2.3.b, "Table 6.6.2.3b Data Transmission Service – Carrier DS1 Service and Features (D), Network Reconfiguration (D) segments at Digital Cross Connect node, either proactively or within minutes of a trouble detection." Does this refer to a customer directed reconfiguration?

Answer: Yes.

6-40. Table 6.6.2.3.b, "Customer Network Reconfiguration Port Access (D) Allows access to port with either a dedicated private port or dedicated dial up port." Does this refer to a customer directed reconfiguration?

Answer: Yes.

6-41. 6.6.2.4.b, Data Transmission Service – Carrier DS3 Service and Features (D)": Does this refer to a customer directed reconfiguration?

Answer: Yes.

6-42. 6.6.2.5, Gigabit Ethernet Metropolitan Area Network: Is this a shared Gig-E service? Is amplification/regeneration within the Gig-E network allowed?

Answer: As defined for this RFP this is a dedicated service, not shared. Amplification/regeneration is allowed.

6-43. 6.6.2.5, Gigabit Ethernet Metropolitan Area Network: Can the State provide detailed locations for gigabit Ethernet MAN requirements?

Answer: This information is available to pre-qualified Bidders upon request to the Procurement Official listed in RFP Section 1.

6-44. Table 6.6.2.5.a, Gigabit Ethernet Service and Features (D): Please define "Intradistrict" and "Interdistrict"

Answer: Intradistrict is within the same wire center. Interdistrict is different wire centers within the same district, or LATA.

6-45. 6.6.2.6 Extended Carrier Services: Why is "Extended" Carrier Services broken out as a separate category of data services?

Answer: See "General Response" in Question and Answer Set #2 posted November 24th, 2004 and refer to answer to question 6-48.

6-46. 6.6.2.6 Extended Carrier Services: Wouldn't "Interstate" be a coverage characteristic of each type of data service requested?

Answer: Yes, but not for limited intrastate services.

6-47. Table 6.6.2.6.a, Is it DGS/TD's intent that the table for extended carrier services of page 76 actually be expedited on a nationwide basis within five days?

Answer: **Yes, this is DGS/TD's intent, however, this requirement will be changed to 'Desirable' in a future addendum.**

6-48. 6.6.3 Synchronous Optical Network (SONET): SONET Services—where does DGS/TD plan on providing SONET Services? Are these required Statewide and in other telephone company territories? Will the State accept Individual Base Pricing on a case-by-case basis for SONET services?

Answer: a. SONET services are required throughout the state. b. Yes. c. SONET pricing is on an Individual Case Basis, refer to section 7, Cost Table 6.6.3.

6-49. 6.6.3 Synchronous Optical Network (SONET): Sonet is listed as M-O yet listed as (D) in table 6.6.3.1a. Is this correct?

Answer: The error was corrected with Addendum 1.

6-50. 6.6.6, Does DGS have any interest in a private, secure, native IP backbone for WAN connectivity?

Answer: It is not the State's intent to dictate the method of service/feature delivery. Refer to Questions and Answers Set #1, question #3 posted November 16th, 2004.

6-51. 6.6.6, Switched 56 at 56Kbps, 64Kbps, or increments of 128Kbps to 1.544Mbps. Can the State please clarify the level of granularity requested?

Answer: Outbound Switched Digital Service narrowband services are to be provided in increments of 56/64 kbps.

6-52. 6.6.7. Must all three types of LMI - Annex A, Annex D and FRF LMI – be supported? Must mixed types – LMI at one end, Annex D at the other, for example – be supported?

Answer: a. Yes. b. Yes.

6-53. 6.6.7, Frame relay and ATM page 86-87: Is it DGS/TD's intent to require CIR to be provided in four kbps increments below 56K and up to DS-3?

Answer: Yes.

6-54. 6.6.7.1 Frame Relay: Why is CIR granularity of 4kbps increments required, but frame relay port speeds are only defined at DS-0 56Kbps, DS-1 1.536Mbps, DS-3 44 Mbps? What about frame relay port speeds between 56 Kbps and 1.5 Mbps, such as 128 Kbps, 256Kbps, 384Kbps, 512Kbps, etc.?

Answer: Frame Relay port speeds are designed to match the carrier circuit. CIRs are incremental at 4kbps each within those carrier circuit parameters.

6-55. 6.6.7.1 & 6.6.7.4, Frame Relay: Frame Relay is separated into "standard" and extended (nationwide). The two categories have different requirements. Can extended Frame Relay be merged with "standard"?

Answer: Extended Frame relay is the same service and has the same requirements as Frame relay(6.6.7.1) with the exception of being offered nationwide. The two categories will remain as structured but this should not create any limitation of the architectures proposed by the vendor.

6-56. 6.6.7.1.a, Is the DGS willing to accept a 64 Kbps port versus 56 Kbps? Table 6.6.7.1a Specifies DS0 (56Kbps), DS1 and DS3 FR connections – does the State also desire fractional DS1 (128Kbps, 256Kbps, etc.) connections be supported as well?

Answer: a. 56 kbps with 8 kbps framing is acceptable. b. Refer to section 6.6.2.3.

6-57. 6.6.7.2 Asynchronous Transfer Mode Data Services: Why do port rate requirements stop at OC-3c, instead of including OC12 and OC-48?

Answer: The State has no current requirements for ATM port rates above OC3, but ATM port rates for OC-12 and OC-48 will be added to Section 6.6.7.2 in a future addendum as desirable item. Additionally, ATM port rates above OC-48 can be proposed in the unsolicited services/features section.

6-58. 6.6.7.2 Asynchronous Transfer Mode Data Services: Does the State not desire VBR-rt ATM service? Does the State desire ATM port sizes larger than OC-3?

Answer: a. The State is seeking VBR-near real time ATM service but not VBR-rt. b. See response to 6-57 above.

6-59. 6.6.7.2 & 6.6.7.6, ATM: ATM is separated into "standard" and "extended." ATM standard specifies nationwide availability. Extended ATM does not specify geography. The two categories have different requirements. Can the two categories be merged?

Answer: Standard ATM is defined as Intrastate, Extended is defined as nationwide. The two categories will remain as structured but this should not create any limitation of the architectures proposed by the vendor.

6-60. 6.6.7.3, "Contractor's architecture shall provide Customer Network Management (CNM) X-terminal (X-term) management capabilities, including……" Does the State have a management system, or should the bidder propose a management system? If so will DGS provide details on the management system?

Answer: Yes, the State currently has a management system. Bidders should propose a management systemin accordance with the requirements described in RFP Section 6.6.7.5 on page 6-95.

6-61. 6.6.7.3 ATM and Frame Relay Management Services: Why does DGS make X-terminal access a requirement to customer network management information instead of secure, web-based access? Is CNM Web V.2 Service an incumbent's product?

Answer: This section will be corrected in a future addendum.

6-62. 6.6.7.3 ATM and Frame Relay Management Services: Why are there separate customer tools defined for each type of product/service in this procurement instead of a secure portal to the major services defined in this entire RFP?

Answer: See "General Response" in Question and Answer Set #2 posted November 24th, 2004.

6-63. 6.6.7.3 ATM and Frame Relay Management Services: Why is more emphasis put on the access methodology than specific requirements pertaining to the bulleted items in this section? Please provide details for each of the bullets in this section.

Answer: a. See "General Response" in Question and Answer Set #2 posted November 24th, 2004. b. These bullets will be more thoroughly explained in a future addendum.

6-64. 6.6.7.4 Extended Frame Relay: Why is "Extended Frame Relay" broken out separately from Section 6.6.7.1?

Answer: See "General Response" in Question and Answer Set #2 posted November 24th, 2004.

6-65. 6.6.7.4 Extended Frame Relay: Is the terminology "Extended Frame Relay" specific to the current CALNET-I environment? Is this an effort to keep that service in place for agencies that don't want to migrate out of the current product set that's under contract?

Answer: a. No, the term 'extended' refers to services nationwide as opposed to within the state. b. No, see "General Response" in Question and Answer Set #2 posted November 24th, 2004.

6-66. 6.6.7.4 Extended Frame Relay: Shouldn't the requirements of frame relay be for a consistent offering whether the service is Intrastate, Interstate, InterLATA or IntraLATA?

Answer: Yes, the offering will be consistent and will be corrected in a future addendum.

6-67. 6.6.7.4 Extended Frame Relay: Why aren't any class of service options (VFR-rt, VFR-nrt, UFR) specified for PVCs included in this section or in Section 6.6.7.1?

Answer: See "General Response" in Question and Answer Set #2 posted November 24th, 2004.

6.68. 6.6.7.4a Extended Frame Relay Features: For feature "Fixed CIR PVCs", is this meant to read 16Kbps to 10.752 Mbps?

Answer: 10.752 should include Mbps and will be corrected in a future addendum.

6-69. Table 6.6.7.4.a, "These PVCs have a CIR ranging from 16 Kbps to 10.752 Frames transmitted in excess of the CIR are marked "DE": What is the range of CIR values desired?

Answer: CIR shall be provided in 4 Kbps increments.

6-70. 6.6.7.5 Managed Frame Relay: Does the term "network filter" refer to a firewall or an access list within a router? Will the State provide a listing of the existing CPE?

Answer: a. A network filter could be any application, device or process that would allow the customer to control access to sensitive data. b. See RFP Section 3, Exhibit 3-P.

6-71. 6.6.7.5 Managed Frame Relay: This section references Exhibit 3-P of Section 3. Please provide manufacturer and model numbers of equipment to be managed by service provider.

Answer: The manufacturer is Visual Networks. The models are identified in Section 3, Exhibit 3-P.

6-72. 6.6.7.5 Managed Frame Relay: Since all new managed CPE must be procured through other contracts like CMAS, does the winning contractor specify what equipment is certified to be managed under the contract, does DGS make this determination, or does the agency that procures the equipment?

Answer: Yes, the winning Contractor will designate the non-proprietary equipment to be certified. Proprietary equipment may be purchased under this contract, except for the initial transition from the CALNET I contract.

6-73. 6.6.7.5 Managed Frame Relay: The State is requesting that the contractor manage and maintain CPE that is not purchased or leased from the contractor, or to provide new hardware at no cost to the State. The State also requires vendors to propose "Hardware Maintenance" plans, presumably at a cost. Please clarify if vendor can or cannot charge for the management and maintenance of either non-contractor owned CPE or contractor-provided CPE.

Answer: The Contractor may charge for the management and maintenance of both non-contractor owned CPE and contractor-provided CPE. Refer to Section 7, Exhibit 7a, 6.6.7.5.a.

6-74. 6.6.7.6 Extended ATM: Similar to the "Extended" frame relay section, why is "Extended" ATM broken out as separate requirement from ATM?

Answer: See "General Response" in Question and Answer Set #2 posted November 24th, 2004. Also wee answer to 6-55 above.

6-75. 6.6.9, DSL: Is this DSL access to frame and ATM network (i.e.. RLAN)?

Answer: Yes for ATM services, no for Frame Relay. Further detailed clarification and analysis will occur during the conceptual and detailed technical proposal confidential discussions (RFP Section 2.3.2).

6-76. 6.6.9, DSL: Is VPN site-to-site connectivity only with DSL? Please clarify.

Answer: VPN over DSL is the only VPN we are requesting in this RFP.

6-77. 6.6.10 Video Conferencing: This section defines video conferencing network services. Will video conferencing CPE acquisition be made through CMAS and/or other contracts?

Answer: Yes

6-78. 6.8.1 Voice Over Internet Protocol (VOIP): Is this jitter on a per hop basis or aggregate end-to-end?

Answer: The jitter requirement is 60 ms end-to-end. The RFP will be corrected with a future addendum.

6-79. 6.8.1 Voice Over Internet Protocol (VOIP): Point of clarification: Is the RFP correct in specifying the jitter (delay variance) shall be less than 60 ns (nanoseconds)? Should this read 60 msec? A reasonable packet loss (in order to achieve a MOS-like prediction on the order of 3.8 or better) is 0.5-1%; it does vary depending upon the CODEC used. However, 5% packet loss is excessive and will result in very poor voice quality regardless of CODEC choice.

Answer: The jitter requirement is 60 ms, packet loss shall be 1% and shall be corrected in a future addendum.

6-80. 6.8.1 Voice Over Internet Protocol (VOIP): The jitter requirement of less than 60 nanoseconds is unrealistic. Network jitter for VoIP under 20 milliseconds is typically sufficient. Is this a typo?

Answer: Requirement is less than 60 ms and will be corrected in a future addendum.

6-81. 6.8.1 Voice Over Internet Protocol (VOIP): Is it the State's desire to use H.248/Megaco protocol as the media gateway controller protocol, as referenced on page 111?

Answer: The protocol shall be standards based. The contractor shall identify the standards based platform and protocol for the design model.

6-82. 6.8.1 Voice Over Internet Protocol (VOIP): Please indicate the peak number of simultaneous calls expected during Off-net to On-net and On-net to Off-net calling for both network and premise based systems.

Answer: Thresholds maximum calculations should be based on the Contractor's factors using a median headcount of 200.

6-83. 6.8.1 Voice Over Internet Protocol (VOIP), Security: In reference to Encryption for both network and premise based systems, please indicate type of encryption desired (DES, 3DES, AES), and identify if this encryption is to be limited to data and voice calls across the WAN, or whether LAN based encryption is also desired?

Answer: 3DES or better. LAN encryption is not required.

6-84. 6.8.1 Voice Over Internet Protocol (VOIP), Security: Please clarify type/extent of authentication required for both network and premise based systems. I.E., will this be 802.1X switch and PC configured authentication? Port based (local) authentication? Port Security based authentication (MAC address based), RADIUS or TACACS server based authentication? Will phone authentication also be required, whereby user enters a pass code before phone access is granted?

Answer: All authentication protocols that fall under the guidelines of the Internet Engineering Task Force (IETF) and IEEE are acceptable. Phone authentication is not required.

6-85. 6.8.1 Voice Over Internet Protocol (VOIP), Security: Please identify location of firewall security gateway. Is the firewall to be intended to reside at the edge of the network to protect remote access users and Internet services only? Is the firewall gateway service intended to reside at each remote site to effectively firewall off each remote site network from all other sites, including the Central site for both network based and premise based system?

Answer: The firewall gateway service shall reside at each remote site.

6-86. 6.8.1 Voice Over Internet Protocol (VOIP), Security: In reference to E911 Compliance, will user mobility capabilities be desired? If so will Contractor be responsible for updating and maintaining the user database for new IP Phone additions?

Answer: a. Yes, E911 Compliance must address user mobility. b. Yes, the Contractor will be responsible for all database updates.

6-87. 6.8.1 Voice Over Internet Protocol (VOIP), Security: In reference to call detail please clarify what degree of call detail is desired specifically- e.g., Calling phone number, called phone number, duration of call, time of day, etc?

Answer: Call detail should include calling number, called number, time of day, duration and should identify station-to-station, transferred calls and access to voice mail.

6-88. 6.8.1 Voice Over Internet Protocol (VOIP), Security: Is DGS looking for these security systems to reside at the edge of each network (Routers and firewalls), or is DGS requesting a "Host based" Intrusion Detection System as well? If a Host based IDS is desired, will this solution be restricted only to the IP based PBX server (if applicable), or is the solution to be extended across all servers residing within the network?

Answer: The complexity and diversity of the responses possible for this question dictate further detailed clarification and analysis which will occur during the conceptual and detailed technical proposal confidential discussions (RFP Section 2.3.2). Also, see answer to 6-85 above.

6-89. 6.8.1 Voice Over Internet Protocol (VOIP): Does the Central Office Network Based VoIP service need to support IVR, ACD CTI and other Call Center functions as described in other sections in this bid?

Answer: No, but these can be proposed in the unsolicited services/features section.

6-90. 6.8.1 Voice Over Internet Protocol (VOIP): Does VoIP service need to support WIFI?

Answer: No, but this service can be proposed in the unsolicited services/features section.

6-91. 6.8.1.1 Central Office Network Based VoIP Design Model: Please indicate the number of voice mailboxes desired for this design?

Answer: 400 voice mailboxes.

6-92. 6.8.1.1 Central Office Network Based VoIP Design Model: Should bidder assume that Uninterruptible Power Supply equipment is installed on the LAN?

Answer: No. This is a fully managed service utilizing the greenfield approach. If it is required to apply special consideration for power at the premises to meet the specific SLA's, it is the responsibility of the provider and should be included in the costs of the service.

6-93. 6.8.1.1 Central Office Network Based VoIP Design Model: Should the cost of connecting to the PSTN be included in the monthly service cost (e.g. PRIs or WAN connections)? What amount of local and long distance usage should be price for both Network and Premise based models?

Answer: a. Yes. b. Refer to section 7 (6.8.1.1), line item 3, Call usage.

6-94. 6.8.1.1 Central Office Network Based VoIP Design Model: With what other services, such as Unified Messaging, calendaring, email, IP Video Conferencing, Database connectivity, Cellular phones, would the State want central office network based VoIP to integrate?

Answer: Due to the uncertainty of the evolution and adaptation of VoIP, and for the purpose of this solicitation, it is essential for the State to maintain consistency in the evaluation process. Unified messaging will be added to section 6.8.1.1 in a future addendum as a "Desirable" item. The other services cited can be proposed in the unsolicited services/features section.

6-95. 6.8.1.1 Voice Mail Services and Central Office Network Based VoIP Design Model: Does the State want the "integrated messaging" service integrated with the Voice Mail Service described in 6.4.8 so that messages can be exchanged between the two systems without usage charges?

Answer: Integrated messaging will be added to this section in a future addendum as a "Desirable" item.

6-96. 6.8.1.1 Central Office Network Based VoIP Design Model: Does the State want to have redundancy (circuits, equipment, etc.) priced into this scenario?

Answer: It is not the State's intent to dictate the method of service/feature delivery but require that service performance levels are met.

6-97. 6.8.1.1 Central Office Network Based VoIP Design Model: Does the State want the proposed Hosted VoIP offering to include an online tool to manage 911 location updates as well as Moves, Adds and Changes?

Answer: No, this will be the responsibility of the managed service provider. Further detailed clarification and analysis will occur during the conceptual and detailed technical proposal confidential discussions (RFP Section 2.3.2).

6-98. 6.8.1.1 Central Office Network Based VoIP Design Model: Does the State that a user switching from a Centrex line to VoIP retain their current phone number?

Answer: Yes, retaining the same phone number is a requirement of the RFP during transition.

6-99. 6.8.1.1 Central Office Network Based VoIP Design Model: If phones are to be bundled into the cost of the service, are software phones acceptable or are standard IP phones required?

Answer: Software phones are acceptable if the PC equipment is included in the bidder's offering. Refer to Section 6 page 114, Last Paragraph.

6-100. 6.8.1.1 Central Office Network Based VoIP Design Model: The Premises based model states " For the purposes of this model growth is limited to 15%." Is this 15% per year or life of project over the length of the contract? Is the growth rate to be applied to the CO Network based model as well?

Answer: a. This is a fixed one-time measurement that may be applied in developing the initial infrastructure design. b. No

6-101. 6.8.1.1, 6.8 and 6.4.8 Voice Mail Services and Central Office Network Based VoIP Design Model: What Email systems, calendaring systems and Celluar phone services does the State want the "integrated messaging" system to be integrated with?

Answer: Integrated messaging will be added to 6.8.1.1 in a future addendum as a "Desirable" item.

6-102. 6.8.1.1 Central Office Network Based VoIP Design Model: Please clarify, does "Greenfield" include all new switching and routing hardware, circuits, cable plant infrastructure (fiber and copper) and IP telephony components for both the central office and premise based solutions?

Answer: Yes

6-103. 6.8.1.1 Central Office Network Based VoIP Design Model: Does the "greenfield" assume that 100% of the cost of LAN equipment such as routers and switches should entirely be bourn by the VoIP solution (LAN equipment may serve a data network function as well)?

Answer: For the purposes of this model, base the design on voice traffic alone. An accurate inclusion of data functionality is impractical to model at this time.

6-104. 6.8.1.1 Central Office Network Based VoIP Design Model: The RFP states that the "Contractor shall be responsible for all maintenance and upgrades required to support clients needs." Does this include hardware / software upgrades and maintenance for the LAN infrastructure such as routers and Ethernet switches?

Answer: Yes

6-105. 6.8.1.1 Central Office Network Based VoIP Design Model: Does the State desire to procure CO based VOIP features on a per unit basis (similar to how it procures Centrex features) or in bundles?

Answer: Refer to section Cost Table 6.8.1.1 on page 55 of Section 7 for pricing structure.

6-106. 6.8.1.1 Central Office Network Based VoIP Design Model: Does the State want the cost of the phones bundled into the price of the service?

Answer: Yes. Refer to section Cost Table 6.8.1.1 on page 55 of Section **7 for pricing structure.**

6-107. 6.8.1.1 Central Office Network Based VoIP Design Model: Should bidder include the cost of the firewall and other security equipment or assume it is in place from the data network?

Answer: The cost should be included in the design.

6-108. 6.8.1.1 Central Office Network Based VoIP Design Model: Should bidder assume that Cat 5 or better wiring is available in greenfield design to the office jack?

Answer: No, bidder is to provide cabling in a greenfield design.